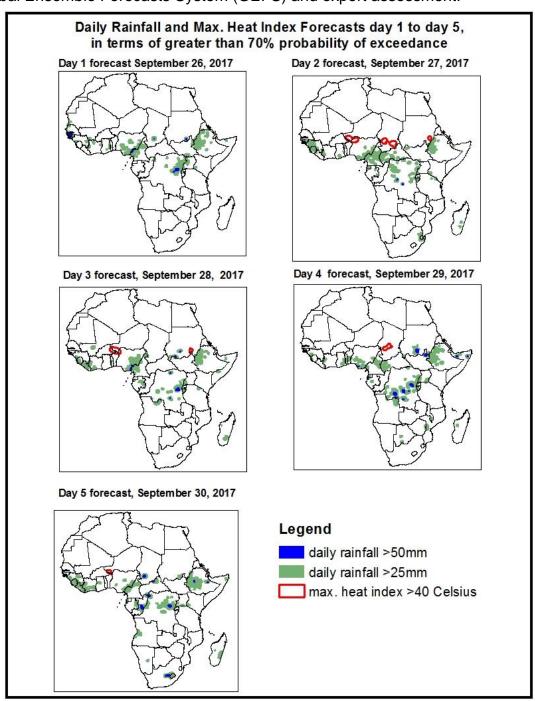
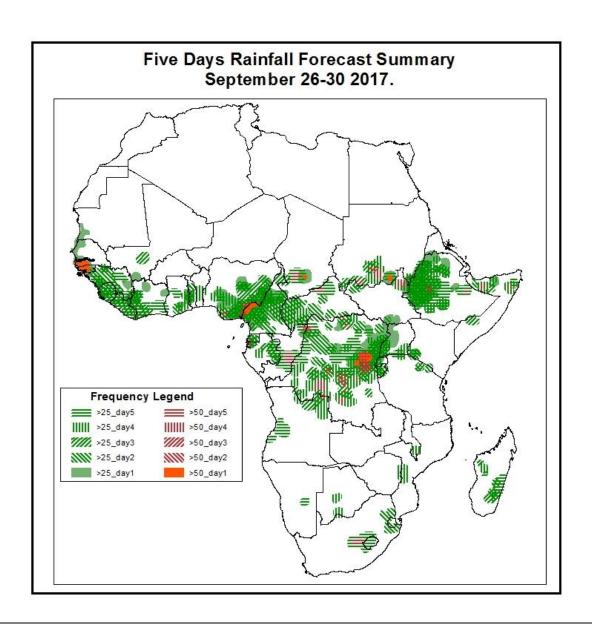
- **1. Rainfall, Heat Index and Dust Concentration Forecasts,** (Issued on September 25, 2017)
- **1.1. Daily Rainfall and Maximum Heat Index Forecasts** (valid: September, 26-30 2017)

The forecasts are expressed in terms of high probability of precipitation (POP) and high probability of maximum heat index, based on the NCEP/GFS, ECMWF and the NCEP Global Ensemble Forecasts System (GEFS) and expert assessment.

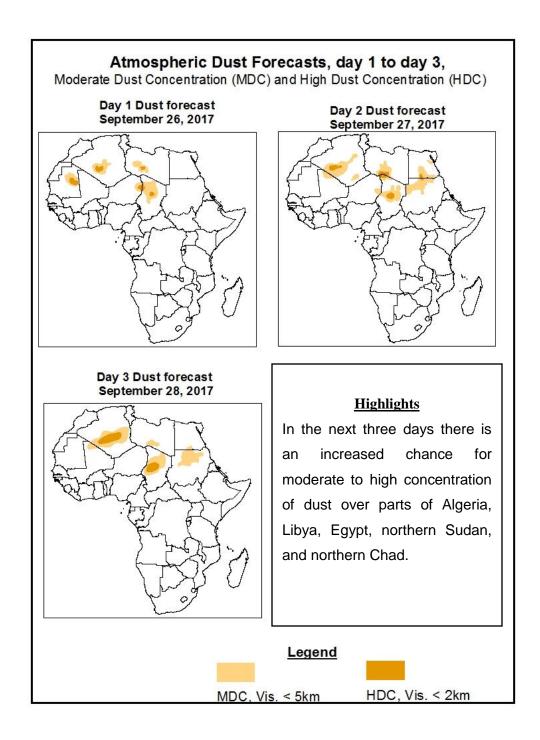




<u>Highlights</u>

In the next five days, a monsoon flow from the Atlantic Ocean across West and Central Africa combined with a lower-level cyclonic circulation propagating across the Sahel countries coupled with upper level divergence is expected to enhance rainfall over many places in West and Central African countries. Active lower-level convergence over Angola to DRC and traversing through Burundi, Rwanda, northern Tanzania, the Lake Victoria, and Uganda then to the South Sudan is also expected to enhance rainfall in the region. As a result, there is an increased chance for two or more days of moderate to heavy rainfall over many places in Sierra Leon, Liberia, western Cote D`Ivoire, central Togo, eastern Nigeria, Cameroon, Equatorial Guinea, eastern Gabon, central Congo, southern Chad, CAR, DRC, Burundi, Rwanda, past of Uganda, southern Sudan, Ethiopia and northern Somalia.

1.2. Atmospheric Dust Concentration Forecasts (valid: September 26-28 2017) The forecasts are expressed in terms of high probability of dust concentration, based on the Navy Aerosol Analysis and Prediction System, NCEP/GFS lower-level wind forecasts and expert assessment.



1.3. Model Discussion, Valid: September 26-30 2017

The Azores High Pressure system over the North Atlantic Ocean is expected to maintain its central pressure value of 1020hpa in the next 24hours then intensify to 1025hpa towards the end of the forecast period.

The St. Helena High Pressure system over the Southeast Atlantic Ocean is expected to maintain its central pressure value of 1027hpa in the next 72hours and then later intensify to 1028hpa towards the end of the forecast period.

The Mascarene High Pressure system over the Southwest Indian Ocean is expected to intensify from its central pressure value of 1035hpa to 1038hpa in the next 24hours and then gradually weaken to 1032hpa towards the end of the forecast period.

The heat low over western Sahel is expected to fill up from its value of 1007hpa in the next 48hours to 1009hpa and then deepen back to 1007hpa towards the end of the forecast period.

Over the central Sahel, the heat low is expected to maintain its value of 1009hpa in the next 48hours and then starts deepen to 1008hpa towards the end of the forecast period.

Over the Sudan area, the heat low is expected to maintain its value of 1007hpa towards the end of the forecast period.

At 925hPa, there is a convergence which is dominated by the continental winds over the Sudan area, the central Sahel and west Sahel regions, with vortices developing which are dominated by the continental winds and are moving westward towards the end of the forecast period.

Another convergence is established over the north eastern Angola traversing through the DRC to South Sudan which remains quasi-stationary towards the end of the forecast period.

The dry north easterlies to easterly winds propagating from the subtropical high pressure system over North Africa sustained the spreading and transportation of the Saharan dust over Algeria, Libya, Egypt, northern Sudan and northern Chad.

At 850hPa, there is a convergence flow over West Africa and the Sudan area with pockets vortices spreading over the central Sahel and the Sudan areas which are dominated by the continental winds and are in continuous development with a westward propagation to the end of the forecast period.

There is another strong convergence over the north eastern Angola to the DRC which traverse and extends to Burundi, Rwanda and Uganda then to the South Sudan and moves to the northeast direction towards the end of the forecast period.

At 700hPa, there is the divergence of a northeasterly to easterly flow from the subtropical high pressure system over the north and West Africa to its coasts towards the end of the forecast period.

Divergence over central, eastern and the southern part of Africa predominate and persist over regions towards the end of the forecast period.

In the next five days, a monsoon flow from the Atlantic Ocean across West and Central Africa combined with a lower-level cyclonic circulation propagating across the Sahel countries coupled with upper level divergence is expected to enhance rainfall over many places in West and Central African countries. Active lower-level convergence over Angola to DRC and traversing through Burundi, Rwanda, northern Tanzania, the Lake Victoria, and Uganda then to the South Sudan is also expected to enhance rainfall in the region. As a result, there is an increased chance for two or more days of moderate to heavy rainfall over many places in Sierra Leon, Liberia, western Cote D`Ivoire, central Togo, eastern Nigeria, Cameroon, Equatorial Guinea, eastern Gabon, central Congo, southern Chad, CAR, DRC, Burundi, Rwanda, past of Uganda, southern Sudan, Ethiopia and northern Somalia.

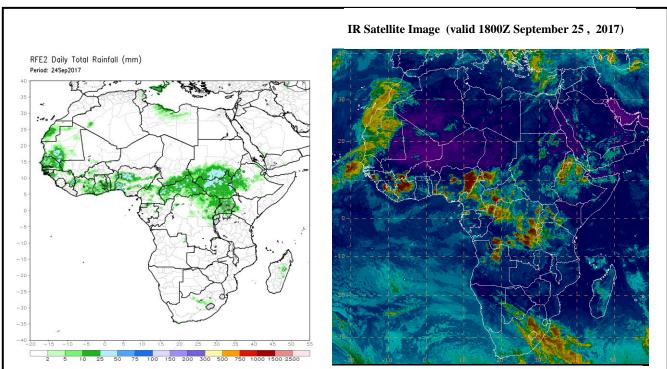
2.0. Previous and Current Day Weather over Africa

2.1. Weather assessment for the previous day (September 25, 2017)

Moderate to locally heavy rainfall was observed over Western Sahara Senegal southern Mauritania, Ghana, Togo, Benin, northern Algeria, parts of Nigeria, parts of Cameroon, CAR, northern DRC, southern Sudan, South Sudan, Uganda and Ethiopia.

2.2. Weather assessment for the current day (September 26, 2017)

Intense convective clouds are observed over portions of West, Central and East Africa.



Previous day rainfall condition over Africa (Left) based on the NCEP CPCE/RFE and current day cloud cover (right) based on IR Satellite image.

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